EXHIBIT J

AIR MONITORING

Ford Motor Company

3001 Miller Road
Dearborn, Michigan 48121

September 29, 1987

Ms. Laura DeGuire
Air Quality Division
Department of Natural Resources
Stevens T. Mason Building
P. O. Box 30028
Lansing, MI 48909

Subject: Ford Allen Park Clay Mine - Air Monitoring Data

Dear Ms. DeGuire:

Enclosed are the Site and Sensor Information forms, meteorological data, photographs of the sensor area and the data in SAROAD format for the facility Partial Closure Air Monitoring Program.

The monitoring program commenced on August 6, 1986 and continued through November 13, 1986. The request to terminate air monitoring for the remainder of the Cell No. 1 closure was approved by the Air Quality Division of the MDNR on the basis that all the hazardous waste had been covered with clay.

Certain information, such as SAROAD, Site, Project and MASN numbers, were purposely excluded pending assignment by your department.

If you have any questions regarding this letter, please contact Mr. David O'Connor at 313-322-0701.

Very truly yours,

Douglas A. Painter

Douglas A. Painter, Manager
Mining Properties Department

DAP/dao

Enclosures

bxc: V. H. Sussman - Ford SSECO
D. Booth - Wayne Disposal, Inc.

SITE INFORMATION

Date: 09-15-87

MASN #: 82-933

SAROAD #: 23-0160-933-302

County: Wayne

District: No. 5, WCAPC

Station Start Date: 08-06-86

Stop Date: 11-13-86

Station Address: Ford Allen Park Clay Mine
17005 Oakwood Boulevard
Allen Park, MI 48101

Operator & Address:

Zip:

Property Owner & Address: David O'Connor
(Our Contact) Ford/3001 Miller Rd./Room 2042 R.O.B.
Dearborn, MI Zip: 48121

UTM Zone: 17 E: 318.59 N: 4683.37

Ground Elevation, MSL(ft.): 610.9' (elevation at base of sensor platform)

Area Type: Center City X Suburban ___ Rural ___ Remote ___

Land Use: Industrial X Commercial X Residential ___
Agricultural ___ Forest ___

Type of Terrain: Smooth X Rolling ___ Rough ___

Streets nearby (name, direction, dist., traffic vol., type, # lanes):

I-94: Runs SW-NE; Entrance ramp + 6 lanes within 600'; Heavy vol.
Oakwood Blvd.: Runs E-W; 5 lanes 700' away; Heavy volume.
M-39: Runs SW-NE; 2800' away; Heavy volume.

Land use - if predominant use changes within 2 miles:

N Industrial 1000' away
NE
E Com. 600-1200'; Res. 1200'+
SE
S Residential 4000' away
SW
W Residential 3000' away
NW

SENSOR INFORMATION

Site #: 82-933

Date: 09-15-87

Pollutant (or Parameter): TSP, Pb, Cd, Cr

Start Date: 08-06-87 Stop Date: 11-13-87

Instrument Manufacturer & Model No.: GMW #2310 Accu-Vol
Method No.: 91, 92 Ref. Equiv. No.: N/A
Operating Schedule: Midnight-midnight every third day
Method of Collection: Hi-volume sampler
Method of Analysis: Gravimetric w/AA Spectrophotometry

Elevation of Probe from Ground(ft.): 13.5'

Supporting Structure: Elevated platform of 10'

Elevation of Intake from Roof(ft.): N/A

Elevation of Intake from Walls or other Obstructions:

Tree 50' away, to the southeast, approximately 35' higher than probe

Arc Degrees Unrestricted Air Flow: Approximately 340°

Spatial Scale: Micro

Objectives: Maximum Concentration ____ Population Exposure ____
Source Impact X General Background ____

Type Site (may be more than one): NAMS ____ SLAMS ____ SPM X
PSI ____ Episode ____ PSD ____ Industrial X

Dominant Influence at Site: Point ____ Area X Mobile ____

Date Requirements Met for Installation: ____

Siting: ____

Quality Control: Analytical methods from "Quality Assurance Handbook for Air Pollution Measurement Systems", Vol. II
Notes: The noticeably higher TSP concentration on 09-08-86 was due to the activity of stockpiling topsoil due north of the Hi-vol sampling station (see Attachment I map).
Monitor Changes: Three sampling periods were lost (October 11, 14 and 17) due to electrical supply problems - the sampling program was simply extended to compensate for this unexpected delay.

1986 Meteorological Data Summary
Ford Motor Company -- SSECO Tower

DAY	AVG. SPEED	-TEMPERATURE- MIN.	MAX.	AVG.	-RESULTANT- SPEED	DIR.	DIR. PERSIS.	NO. OF SAMPLES
August								
6	3.6	64	80	73	2.7	62	0.756	96
9	4.0	62	81	72	3.6	269	0.894	96
12	1.6	52	75	64	0.9	238	0.575	96
15	5.3	69	85	74	5.1	222	0.975	96
18	6.9	64	82	73	6.5	13	0.944	92
21	4.7	66	83	73	4.3	23	0.922	96
24	4.5	55	74	64	4.2	329	0.919	96
27	7.3	44	64	58	5.8	319	0.801	96
30	2.1	43	70	60	1.4	199	0.677	96
September								
2	2.4	56	77	67	1.3	83	0.545	96
5	5.5	58	74	65	5.2	277	0.947	96
8	3.7	41	68	55	3.4	253	0.903	96
11	11.5	67	76	72	10.8	211	0.933	96
14	2.6	47	65	55	1.4	16	0.549	96
17	3.8	43	63	55	2.8	121	0.728	96
20	3.4	63	76	68	1.9	308	0.552	96
23	3.5	65	73	68	2.6	268	0.742	96
26	3.6	68	85	75	2.3	232	0.654	96
29	6.1	65	86	75	4.9	213	0.804	96
October								
2	1.8	55	66	59	0.4	11	0.224	96
5	6.8	43	61	53	5.5	272	0.809	96
8	5.8	50	71	59	5.1	220	0.865	96
11	2.7	38	63	52	2.2	154	0.834	96
14	6.9	40	50	45	6.4	244	0.924	96
17	4.9	40	52	46	2.9	3	0.593	96
20	2.4	38	65	50	2.3	229	0.960	96
23	2.7	52	70	61	0.5	319	0.173	96
26	3.2	53	60	55	2.5	114	0.787	96
29	6.4	47	58	53	3.9	268	0.611	96
November								
1	5.3	43	66	54	2.2	236	0.417	96
4	6.7	34	42	39	3.6	3	0.533	96
7	2.6	48	59	54	1.4	149	0.531	96
10	2.4	26	40	34	1.6	267	0.669	96
13	7.8	20	26	23	7.0	281	0.899	96
16	4.5	33	40	36	4.1	217	0.910	96

Units:

Speed	mph
Temperature	deg F.

Note: Summary based on observations recorded at fifteen minute intervals.

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Research Triangle Park, N. C. 27711

SAROAD Daily Data Form

OMB No. 158-R0012
Approval expires 6/30/76

24-hour or greater sampling interval

2 Wayne County Health Department
Agency

Allen Park
City Name

17005 Oakwood Boulevard
Site Address

Ford Allen Park Clay Mine
Project

24 hrs.
Time Interval

State Area Site: 2 3 0 1 6 0 9 3 3

Agency: J | Project: 02 | Time: 7 | Year: 86 | Month: 08

	TSP	Pb	Cd	Cr
Name				
PARAMETER Code	11101	12128	12110	12112
Method	91	92	92	92
Units	01	01	01	01
DP	0	3	3	3

Day	St	Hr	TSP	Pb	Cd	Cr
01						
02						
03						
04						
05						
06			0103	0141	0000	0000
07						
08						
09			0029	0000	0000	0000
10						
11						
12			0045	0000	0007	0000
13						
14						
15			0135	0000	0000	0000
16						
17						
18			0040	0000	0007	0000
19						
20						
21			0059	0000	0000	0000
22						
23						
24			0036	0000	0000	0000
25						
26						
27			0025	0000	0000	0000
28						
29						
30			0047	0073	0000	0000
31						

DP → 4 3 2 1 0

Research Triangle Park, N. C. 27711

SAROAD Daily Data Form

OMB No. 158-R0012
Approval expires 6/30/76

24-hour or greater sampling interval

1	Agency
2	Wayne County Health Dept.

Allen Park
City Name

17005 Oakwood Boulevard
Site Address

Ford Allen Park Clay Mine — 24 hrs.
Project — Time Interval

State	Area	Site
23	01609	33

(State: cols 2–3; Area: cols 4–8; Site: cols 9–10)

Agency	Project	Time	Year	Month
J	02	7	86	09

(Agency: col 11; Project: cols 12–13; Time: col 14; Year: cols 15–16; Month: cols 17–18)

Day	St	Hr
18–20	21	22

	TSP	Pb	Cd	Cr
Name				
PARAMETER Code	11101 (23–27)	12128 (37–41)	12110 (51–55)	12112 (65–69)
Method	91 (28–29)	92 (42–43)	92 (56–57)	92 (70–71)
Units	01 (30–31)	01 (44–45)	01 (58–59)	01 (72–73)
DP	0 (32)	3 (46)	3 (60)	3 (74)

Day	St	Hr	TSP (33–36)	Pb (47–50)	Cd (61–64)	Cr (75–78)
01			0081	0135	0000	0000
02						
03			0053	0000	0000	0000
04						
05						
06						
07			1089	0000	0000	0000
08						
09						
10			0074	0000	0000	0000
11						
12						
13			0041	0000	0000	0000
14						
15						
16			0067	0242	0000	0000
17						
18						
19			0091	0000	0000	0000
20						
21						
22			0039	0000	0000	0000
23						
24						
25			0052	0000	0000	0000
26						
27						
28			0071	0000	0000	0000
29						
30						
31						

DP → 4 3 2 1 0

Research Triangle Park, N. C. 27711

SAROAD Daily Data Form

OMB No. 158-R0012
Approval expires 6/30/76

24-hour or greater sampling interval

1	Agency
2	Wayne County Health Dept.

City Name: Allen Park

Site Address: 17005 Oakwood Boulevard

Project: Ford Allen Park Clay Mine

Time Interval: 24 hrs.

State	Area	Site
23	01	6093

Agency	Project	Time	Year	Month
J	02	7	86	10

	TSP	Pb	Cd	Cr
Name				
PARAMETER Code	11101	12128	12110	12112
Method	91	92	92	92
Units	01	01	01	01
DP	0	3	3	3

Day	St	Hr	TSP	Pb	Cd	Cr
01						
02			0051	0087	0000	0000
03						
04						
05			0011	0000	0000	0000
06						
07						
08			0014	0000	0000	0000
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20			0141	0000	0000	0000
21						
22						
23			0120	0064	0000	0000
24						
25						
26			0037	0000	0000	0000
27						
28						
29			0041	0000	0000	0000
30						
31						

DP → 4 3 2 1 0

Research Triangle Park, N. C. 27711

SAROAD Daily Data Form

OMB No. 158-R0012
Approval expires 6/30/76

24-hour or greater sampling interval

[2] Wayne County Health Dept.
Agency

Allen Park
City Name

17005 Oakwood Boulevard
Site Address

Ford Allen Park Clay Mine
Project

24 hrs.
Time Interval

State [2][3] Area [0][1][6][0] Site [9][3][3]

Agency [5] Project [0][2] Time [7] Year [8][6] Month [1][1]

TSP
Name
PARAMETER Code [1][1][1][0][1]
Method [9][1] Units [0][1] DP [0]

Pb
Name
PARAMETER Code [1][2][1][2][8]
Method [9][2] Units [0][1] DP [3]

Cd
Name
PARAMETER Code [1][2][1][1][0]
Method [9][2] Units [0][1] DP [3]

Cr
Name
PARAMETER Code [1][2][1][1][2]
Method [9][2] Units [0][1] DP [3]

Day	St	Hr	TSP	Pb	Cd	Cr
01			0062	0000	0000	0000
02			0039	0000	0000	0000
03			0069	0124	0000	0005
04			0056	0000	0000	0000
05			0094	0000	0000	0000
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						

DP →

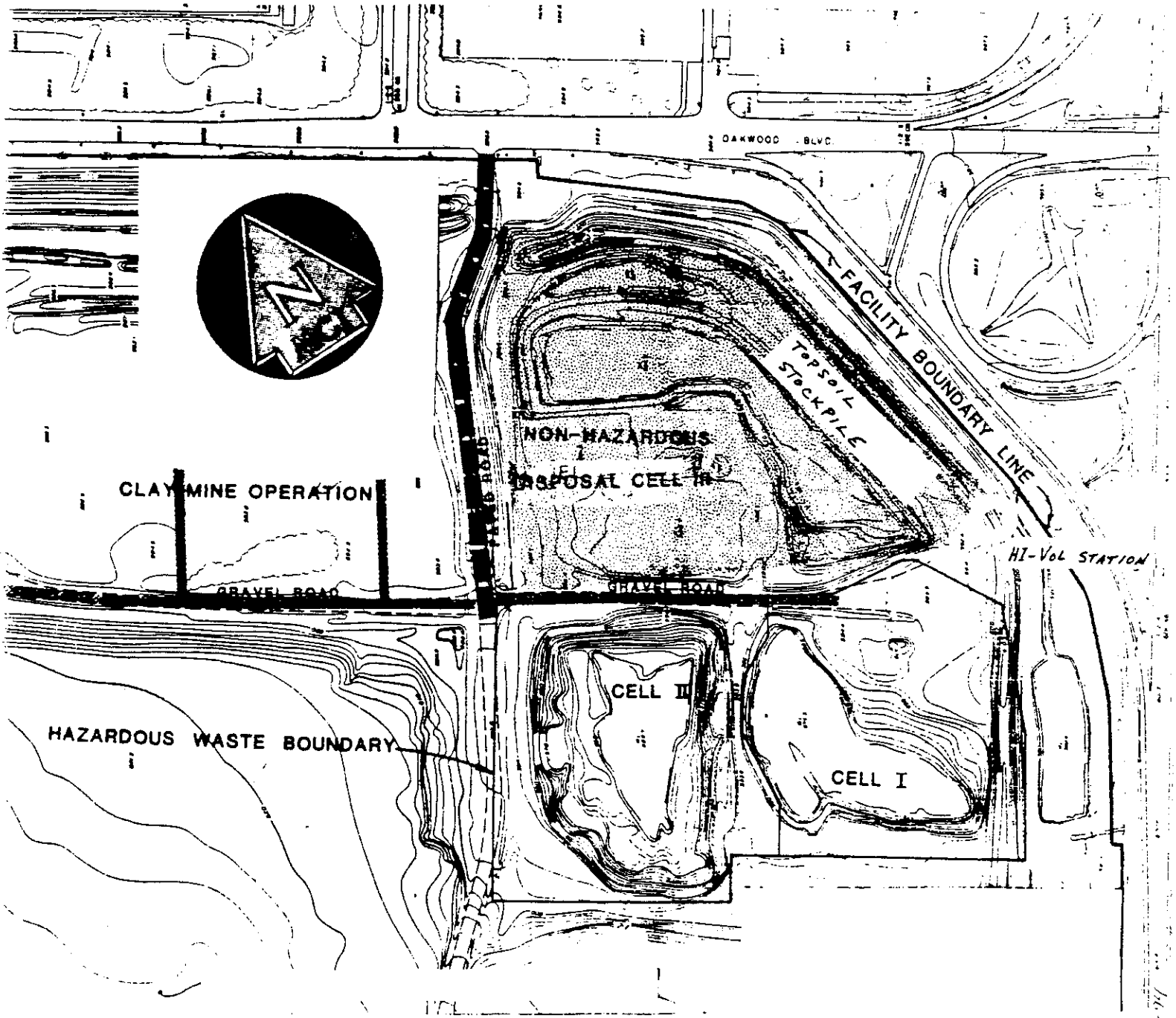
AVERAGE DETECTION LIMIT FOR PARAMETERS RECORDED
AS ZERO ON SAROAD FORM

		Lead($\mu g/m^3$)	Cadmium($\mu g/m^3$)	Chromium($\mu g/m^3$)
August	1986	0.071	0.007	0.071
September	1986	0.098	0.009	0.093
October	1986	0.080	0.008	0.079
November	1986	0.083	0.008	0.079

SAROAD1

FORD MOTOR COMPANY - ALLEN PARK CLAY MINE

Cell 1 Partial Closure Air Monitoring Program
Facility Map



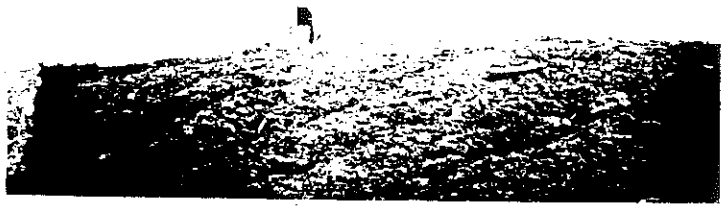
Air Monitoring Station No. 3 Photographs

LOOKING WEST

LOOKING EAST

LOOKING SOUTH

LOOKING NORTH



LOOKING AT STATION

EXHIBIT K

Ford Allen Park Clay Mine

MID 980568711

Section M Exposure Information Requirement (EIR)

ENVIRONMENTAL AND FAILURE MODE ASSESSMENT

This section provides information on the potential public exposure to hazardous wastes or hazardous constituents through releases related to the unit. The exposure information addresses:

- reasonably foreseeable potential hazardous waste releases from transportation to or from the unit, normal operations at the unit and accidents;
- potential pathways of human exposure from such releases; and
- potential magnitude and nature of human exposure from such releases.

In summary, there is a low potential for and magnitude of human exposure from releases from both normal operations, accidents, and transportation at or near the facility for three reasons:

1. Limited pathways to human exposure - Drinking water sources cannot be affected due to the location of the facility.
2. Low toxicity of waste - Subject waste streams are not acutely toxic, reactive, flammable or volatile but generally require a leaching procedure to mobilize their hazardous constituents. Therefore, direct short term contact with the wastes will not cause significant harmful effects on human health.

3. Small quantity of waste released - Releases from the facility will probably be short-lived episodic events which does not allow for chronic exposure.

The EPA Appendix A checklist was utilized in the development of this EIR. Some additional general information which has not been submitted previously has been provided in this section as follows:

1. Zoning maps for an area four miles around the unit which include the cities of Dearborn, Melvindale and Allen Park. Refer to pages 415-417.
2. Two aerial photographs of the facility and surrounding community which show the north (Dearborn) and south (Allen Park) half of the region. Refer to pages 418-419.
3. Tabulation of current leachate analyses which indicates the toxicity of the wastewater to be managed. Refer to page 420.
4. Current estimate of annual waste volumes that have been disposed of at the unit. Refer to page 421.
5. Neighborhood cancer incidence analysis performed by the Biostatistics Unit of the Michigan Cancer Foundation, Division of Epidemiology is provided on pages 428-439.

Known Release Information

Information concerning prior releases that may have occurred in the past relating to nearby solid waste activities is provided in Section L pages 369-401 of the Part B license application.

APPENDIX A. INFORMATION REQUIREMENTS CHECKLIST

1. General Information

Reg. Cite	Description	Location in RCRA Permit Application Page #
	Information in Part B Application	
270.14(b)(1)	General description of facility	26
270.14(b)(2) and (3)	Chemical and physical analyses of wastes	73
270.14(b)(4)	Access control and security description of active portion	268
270.14(b)(5), 270.17(d), and 270.21(d)	General inspection schedule and procedures	271
270.14(b)(6)	Preparedness and prevention documentation	268
270.14(b)(7)	Contingency plan	277
270.14(b)(8)	Preventive procedures	268
270.14(b)(11)(i) and (ii)	Facility location information	61
270.14(b)(13)	Closure plan	322
270.14(b)(13)	Post-closure care plan	322
270.14(b)(17)	Documentation of insurance	322

APPENDIX A. INFORMATION REQUIREMENTS CHECKLIST

1. General Information (continued)

Reg. Cite	Description	Location in RCRA Permit Application Page #
	Information in Part B Application (continued)	
270.14(b)(19)	Topographic map (site plotted on USGS quadrangle maps)	61 154A 154.1A
270.21(a) and 270.17(a)	List of wastes placed or to be placed in each unit	73
	Additional Information	
	Existing risk assessment reports and information, including liability insurance analyses, claims, and settlements	(428-439)
	Land use and zoning map(s) for an area of 4 miles around the unit	(415-417)
	Existing aerial photographs of the facility	152A (418-419)
	Identify and summarize any waste analysis data not already submitted; provide additional data as discussed in text	(420)
	Current estimate of annual amount of waste received and description of any pretreatment process used	(421)
	Identification of any Federal, State, or local inspection or compliance records related to environmental and health programs; include descriptions of any major violations	(422)

( ) Denotes pages included with this submittal.

APPENDIX A. INFORMATION REQUIREMENTS CHECKLIST

2. Ground Water Pathway

Req. Cite	Description	Location in RCRA Permit Application Page #
	Information in Part B Application	
270.14(c)(1)	Interim status ground-water monitoring results	211A
270.14(c)(2)	Identification of uppermost aquifer, including flow rate and direction	210
270.14(c)(3) and 270.14(b)(19)	Topographic maps related to ground-water protection (well location, water table elevation contours, etc.)	210
270.14(c)(4) (i) and (ii)	Description of existing contamination	Not Applicable
270.14(c)(5)	Detailed plans for ground-water monitoring program	163
270.14(c)(6)	Description of detection monitoring program (if applicable)	Not Applicable
270.14(c)(7) and (c)(7)(ii)	Description of compliance monitoring program and characterization of contaminated ground water (if applicable)	Not Applicable
270.14(c)(7)(iv)	ACL demonstration (if any)	Not Applicable
270.14(c)(8)	Corrective action program (if applicable)	Not Applicable
270.17(b)(1) 270.21(b)(1)	Description of liner and leachate collection systems (if applicable)	99A

2. Ground-Water Pathway (Continued)

	Description	Page #
	Additional Information	
	Existing map showing location of all known wells within three miles ; number and location of drinking water wells	(424)
	Discussion of ground-water uses within three miles of unit	(423)
	Regional map showing areas of ground-water recharge and discharge	(424)
	Net precipitation using net seasonal rainfall or other available data	122A
	Unless otherwise reported to EPA, available well data indicating a release, and information on any affected public or private water supplies, including populations served	Not Applicable (423)
	Any known food chain contamination due to prior release from the unit to ground water	Not Applicable (423)

3. Surface Water Pathway

Reg. Cite	Description	Location in RCRA Permit Application Page #
	Information in Part B Application	
270.14(b)(11) (iii) thru (v)	Location information related to 100 yr flood plain including variance demonstrations	154.8A
270.21(b)(2)	System for control of run-on from each peak discharge of 25 yr storm	155
270.21(b)(3)	System for control of run-off from 24 hr, 25 yr storm	159
270.17(b)(2)	Procedures/equipment to prevent overtopping	155
270.17(b)(3)	Structural integrity of dikes	155
	Additional Information	
	Discussion of surface-water uses within three miles of the unit, including a map showing the location of all surface-water bodies and downstream drinking water intakes	(424-425)
	Velocities of streams and rivers passing through and adjacent to the property	(425)

3. Surface Water Pathway (Continued)

Reg. Cite	Description	Page #
	Additional Information (continued)	
	Description of any system used to monitor surface-water quality, and a summary of the data	385-398 (425)
	Description of known releases to surface water; the extent of contamination; remedial action, if any; and if known, severity of impact.	369
	Any known food-chain contamination resulting from prior release from the unit to surface water	(425)

4. Air Pathway

Reg. Cite	Description	Location in RCRA Permit Application Page #
	Information in Part B Application	
270.14(b)(9), 270.21(f) and (g), 270.21(h) and (i)	Documentation of procedures to prevent accidental ignition or reaction	276
270.21(b)(5)	Plans to control wind dispersal of particulate matter at landfills	162.1A
270.14(b)(19)(v)	A wind rose showing prevailing windspeed and direction	154.6A
	Additional Information	
	Summary of air monitoring data and a description of current monitoring system, if any	(427)
	Population within a four mile radius of the unit	(427)
	Describe any known releases to air; the extent of contamination; remedial action, if any; and severity of impact, if known	(427)

APPENDIX A. INFORMATION REQUIREMENTS CHECKLIST

5. Subsurface Gas Pathway

Reg. Cite	Description	Location in RCRA Application Page #
	Information in Part B Application	
	None in addition to General Information Requirements	----------
	Additional Information	
	Any past disposal of municipal-type wastes in the unit; approximate quantities and dates of disposal, if known	Not Applicable (449)
	Map location of any underground conduits within the site and known underground conduits within 1000 feet of property boundary	154.6A
	Descriptions of any monitoring or control mechanisms for subsurface gas release; summarize resulting data	Not Applicable (449)
	Description of any known releases; extent of contamination; remedial action taken, if any; and the severity of impact, if known	Not Applicable (449)

APPENDIX A. INFORMATION REQUIREMENTS CHECKLIST

6. Contaminated Soil Pathway

Reg. Cite	Description	Location in RCRA Permit Application Page #
	Information in Part B Application	---------
	None in addition to General Information Requirements	
	Additional Information	
	If soil sampling has been done, a map showing areas of soil contamination, and a summary of analytical results	369-401
	Description of the types of major releases that resulted in soil contamination, and any clean-up action	Not Applicable (450)
	Any known food-chain contamination resulting from the use of contaminated soils for raising crops	Not Applicable (450)

412

APPENDIX A. INFORMATION REQUIREMENTS CHECKLIST

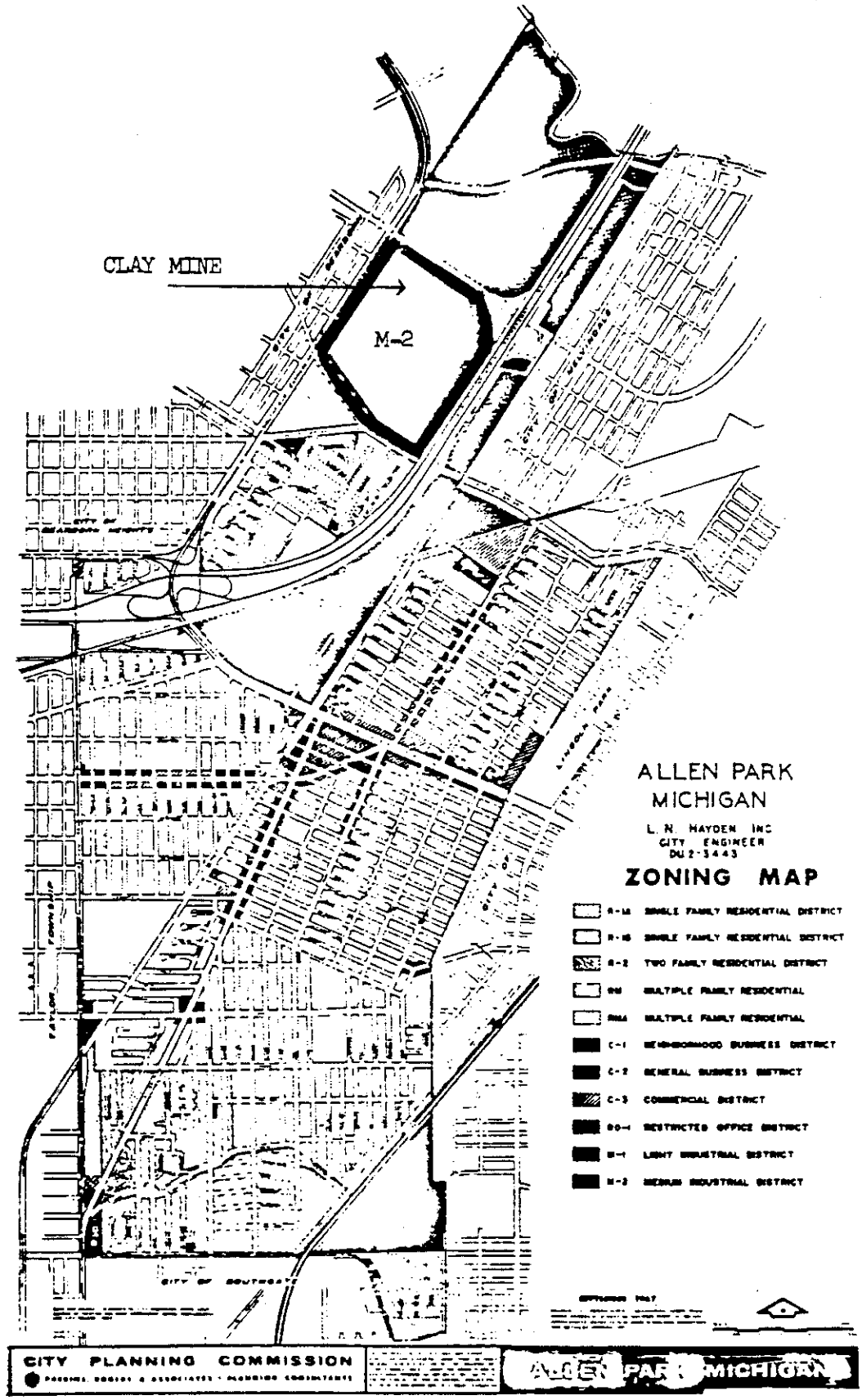
7. Transportation Information

Req. Cite	Description Information in Part B Application	Location in RCRA Permit Application Page #
270.14(b)(10)	Traffic pattern, volume, and controls; access road characteristics.	62A
	Additional Information	
	Description of the types and capacities of vehicles used to transport waste	(450)
	Identification of normal transport routes for hazardous waste into the site and within one mile of the facility entries	(450)
	Description of procedures for clean-up of transportation-related spills or leaks	(450)
	Descriptions of any transportation accidents releasing hazardous wastes on-site, or in the immediate vicinity	(451)

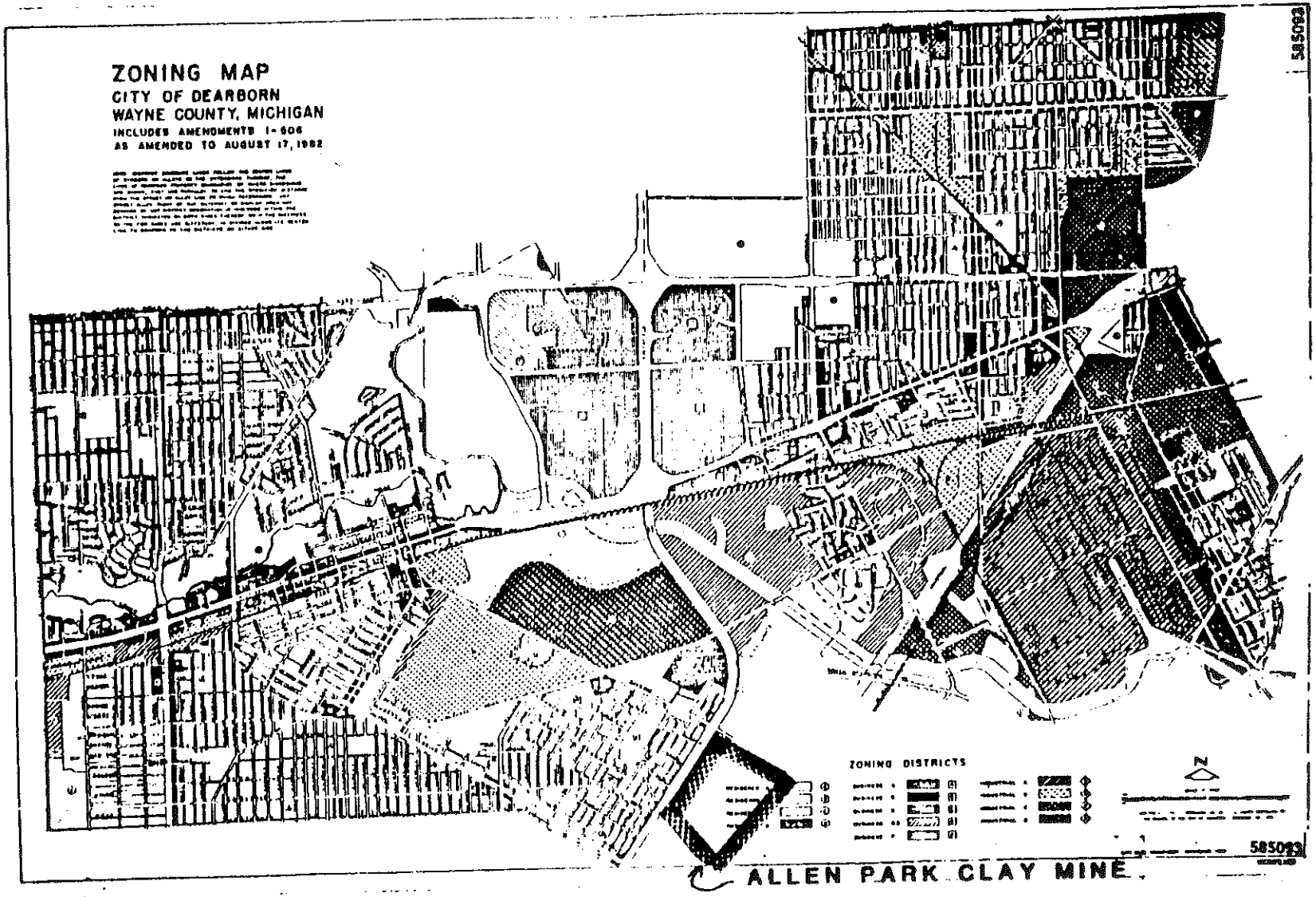
APPENDIX A. INFORMATION REQUIREMENTS CHECKLIST

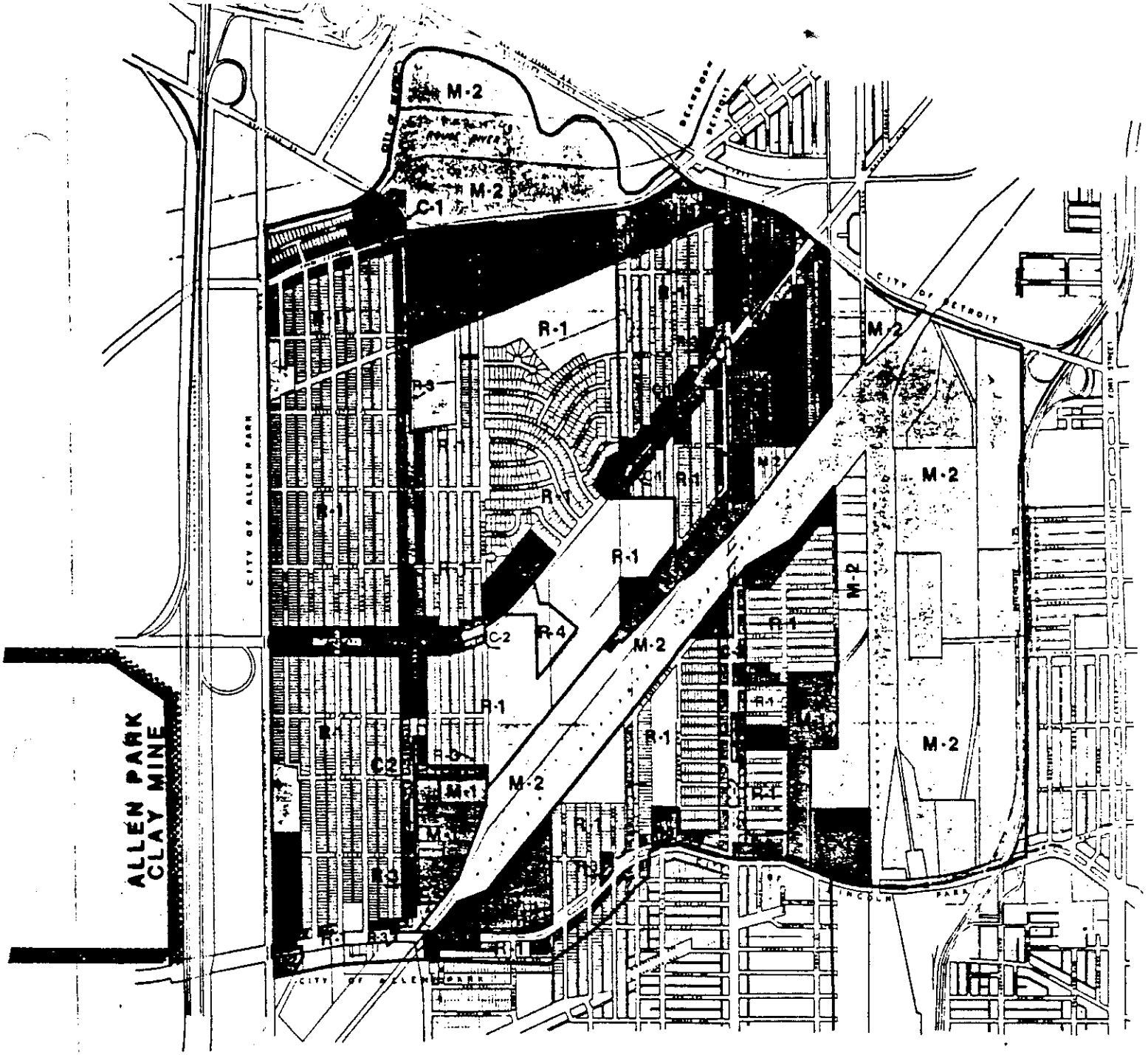
B. Management Practices Information

Reg. Cite	Description	Location in RCRA Permit Application Page #
	Information in Part B Application	
270.14(b)(12) 264.16	Outline of programs to train employees to safely operate and maintain facility, including emergency response activities	294
	Additional Information	
	Summary of existing records on worker illness or injury, related to the operation of the unit; include summaries of Workman's Compensation claims, or hospital records	(451)



FORD ALLEN PARK CLAY MINE
ZONING MAP


ZONING MAP
CITY OF DEARBORN
WAYNE COUNTY, MICHIGAN
INCLUDES AMENDMENTS 1-606
AS AMENDED TO AUGUST 17, 1982
585093
ZONING DISTRICTS
N
585093
ALLEN PARK CLAY MINE



ZONING MAP

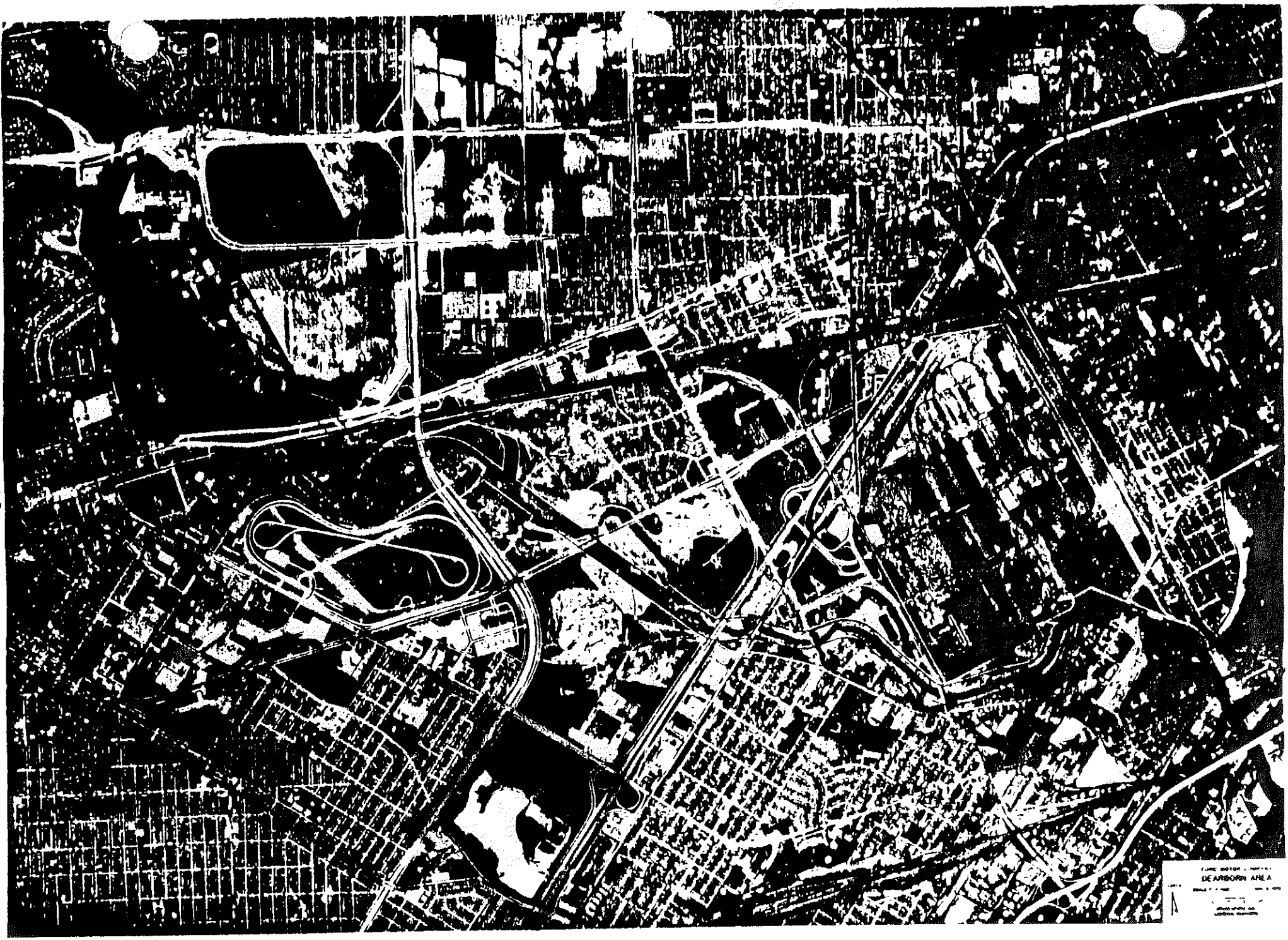
R-1	ONE-FAMILY RESIDENTIAL	**PB-1**	PROFESSIONAL BUSINESS
R-2	TWO-FAMILY RESIDENTIAL	**C-1**	GENERAL SHOPPING
R-3	MULTIPLE-FAMILY RESIDENTIAL	**C-2**	GENERAL COMMERCIAL
R-4	MULTIPLE-FAMILY RESIDENTIAL	**M-1**	LIGHT MANUFACTURING
MHP	MOBILE HOME PARK	**M-2**	GENERAL MANUFACTURING

FEBRUARY 1981

Perkins / Rogers & Associates / Inc.
Planning Research & Environmental Design Consultants
Detroit

NORTH
SCALE 0 400 800 1600 FEET

CITY OF MELVINDALE
WAYNE COUNTY, MICHIGAN


DEARBORN AREA


FORD MOTOR COMPANY
ALLEN PARK AREA
ALLEN PARK, MICHIGAN
DATE OF PHOTOGRAPHY

Allen Park Clay Mine -- MID 980 568 711
Leachate Analyses -- Hazardous Waste Cell I

DATE	PARAMETERS						
	Cd mg/l	Cr mg/l	Pb mg/l	Naphthalene ug/l	Phenol Method 4AAP mg/l	Phenol Method 604 ug/l	pH
4/13/84	<0.01	0.02	<0.05	<10	0.014	<10	
4/18/84	0.01	0.02	<0.05	<10	0.010	<10	
7/19/84	0.02	0.05	0.06	<10	0.090	<10	8.05
8/27/84	0.04	<0.02	0.11	<10	0.023	<10	
10/9/84	<0.01	<0.02	<0.05	<2	0.064	15	7.30
10/10/84	0.01	<0.02	0.08	<2	0.028	<2	7.90
10/11/84	0.01	<0.02	<0.05	<2	0.020	<2	7.96
10/12/84	0.02	<0.02	<0.05	<2	0.025	<2	8.09
10/15/84	<0.01	<0.02	0.10	<2	0.052	10	7.73
11/8/84	0.02	0.02	0.14	<10	0.14	<130	7.58
11/15/84	0.01	0.08	0.20	10	1.00	<390	7.42
11/16/84	0.01	0.03	0.14	18	0.15	<430	7.47
12/8/84	0.02	<0.02	<0.05	<10	0.61	<110	7.58
12/13/84	0.03	0.34	0.50	<12	3.3	<70	7.36
1/7/85	----	<0.02	<0.05	<10	3.8	<900	8.60
1/8/85	----	<0.02	<0.05	<15	3.4	<140	8.61
1/9/85	----	0.03	<0.05	<15	0.015	<200	8.56
1/10/85	----	0.03	<0.05	<48	2.8	<155	8.13
1/11/85	----	<0.02	<0.05	<14	2.7	<235	8.55
1/25/85	<0.01	0.03	<0.05	<64	2.24	<650	8.4
1/28/85	<0.01	0.04	<0.05	<66	2.03	<860	8.5
1/29/85	<0.01	0.06	<0.05	<13	0.69	<240	8.4
1/30/85	<0.01	0.18	0.17	<85	1.80	<750	8.5
4/15/85	0.02	0.12	0.42	<10	3.2	<770	8.07
4/15/85	0.02	0.10	0.33	<10	0.80	<300	8.11
4/30/85	0.01	0.24	0.48	<10	0.42	<25	8.39

Estimated Annual Volume of Waste

Waste Type	1981	1982	1983	1984	Future
F016	16,136	-	-	-	-
D005, D008	3,612	-	-	-	-
K061	6,259	469	60	223	19,074
K087	4,634	1,673	886	1,292	5,270
F006	-	-	-	-	20,000
D006	-	-	-	-	20,000
D007	-	-	-	-	20,000
D008	-	-	-	-	20,000
Total	30,641 yd.^{3}	2,142 yd.^{3}	946 yd.^{3}	1,515 yd.^{3}	104,344 yd.^{3}

Future waste volumes are based on maximum disposal rates.

Inspection Reports

Michigan DNR personnel perform annual RCRA inspections on behalf of the EPA as well as quarterly Act 64 inspections at the facility. Reports are available from:

Hazardous Waste Division
Michigan Department of Natural Resources
P. O. Box 30028
Lansing, Michigan 48909

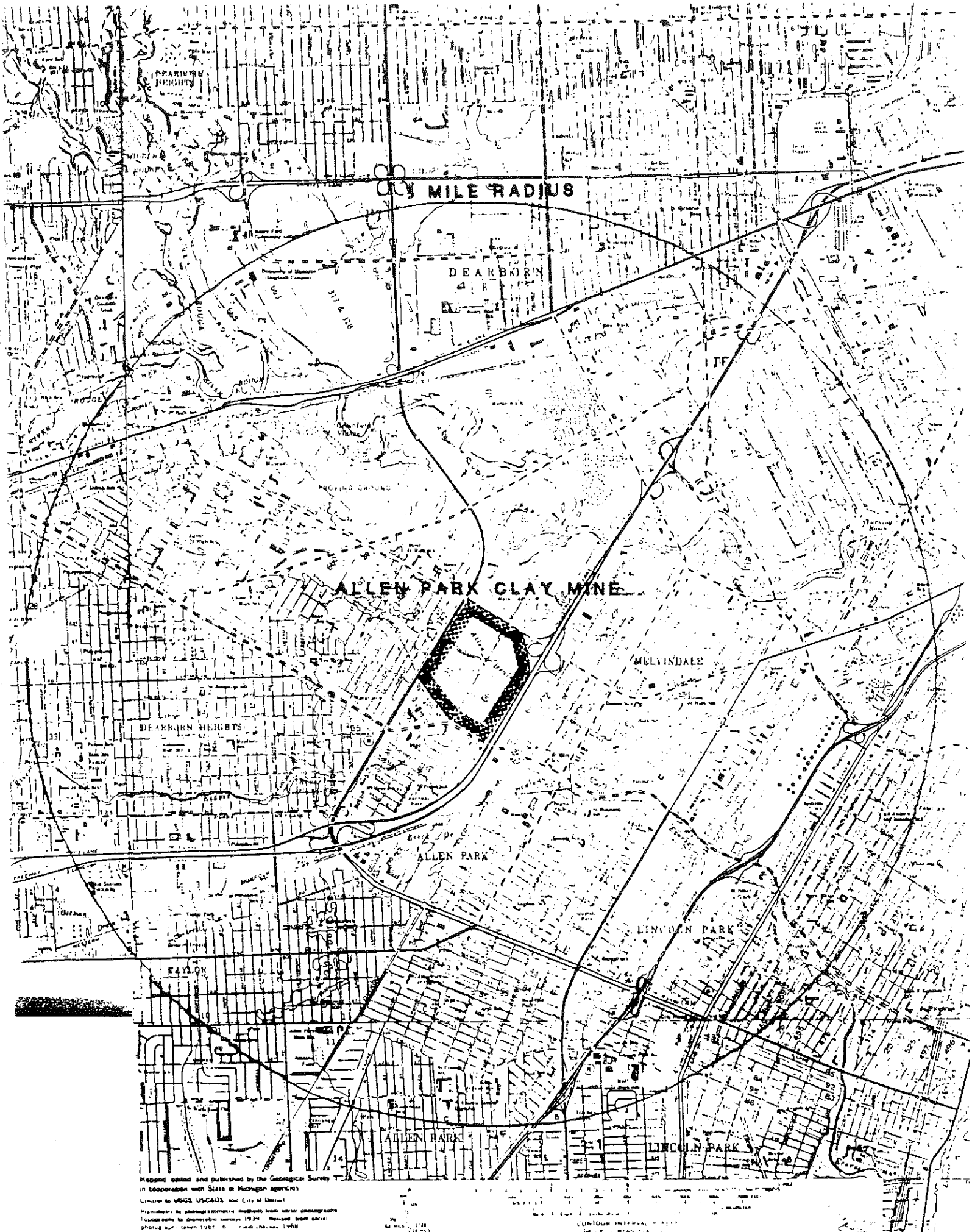
A review of the alleged violations outlined in these reports reveal that most of the alleged deficiencies are procedural in nature. Examples include maintenance of training records, signage and inspection reports. The necessary corrective actions have been taken.

None of the alleged violations are considered major. In no case did the alleged deficiencies cited result in a release to the environment. The facility has not experienced any other regulatory agency inspections.

Potential for Human Exposure Via the Ground Water Pathway

The unit is located in an area of southeastern Michigan (Metropolitan Detroit) which has an extensive uniform lacustrine clay deposit that is 80-120 feet thick, underlain by Devonian carbonate formations whose artesian hydrostatic pressure extends upward through the overlying clay. Refer to pages 163-210 of the Part B license application for the discussion of the ideal hydrogeologic conditions which led to the facility groundwater monitoring waiver demonstration. Because the clay deposit is extensive and the underlying groundwater is highly mineralized, Detroit River/Lake Huron sources are the only water supplies used in the area for drinking or any other purpose. There are no groundwater withdrawal wells within three miles of the facility. The regional recharge is via the underlying artesian bedrock. Net precipitation is provided on page 122A of the Part B application. Refer to page 424 for the regional topographic map of the facility which extends out to a three mile radius.

The combination of a thick clay deposit with artesian conditions effectively prohibits the migration of leachate out of the cell. With installation of a double leachate collection system and double liner per the minimum technological requirements, the unit will have triple protection. In addition, run-on/run-off control systems minimize the potential for releases at the unit. Perimeter surface waters are monitored to identify any releases that might occur; thus, corrective action can be taken before human exposure occurs. There has been no food chain contamination due to any prior releases from the unit to groundwater, nor is there any well data indicating a release.


MILE RADIUS
DEARBORN
ALLEN PARK CLAY MINE
MELVINDALE
DEARBORN HEIGHTS
ALLEN PARK
LINCOLN PARK
TAYLOR
ALLEN PARK
LINCOLN PARK

Potential for Human Exposure Via the Surface Water Pathway

Refer to page 424 for the regional topographic map which shows the location of all surface water bodies within a three mile radius of the facility. The principal water body in this area is the Rouge River which is not commercially fished, used for agriculture, nor utilized recreationally. There are no drinking water intakes within a three mile radius. The facility is not located within the 100 year flood plain as indicated on page 154.8A of the Part B license application. Descriptions of the run-on/off control are on pages 155-162 of the application. Quality assurance and construction detail of the dikes is provided on page 154.8A of the application.

The closest bodies of surface water to the unit is the Allen Drain and Tyre Drain which originate on site. Refer to page 388 of the license application for the location of the drains in relation to the disposal cells. The drains have a flow ranging from 0 to 84 cubic feet per second. The drains flow northeast after leaving the site and enter the Rouge River. Surface water in the drains have been sampled on a quarterly basis with the results presented on pages 385-398 of the Part B license application. Information concerning prior releases that may have occurred in the past relating to nearby solid waste operations is provided on pages 380-401 of the application. There has been no food chain contamination due to prior releases from the unit to surface water.

There are certain design and operating features which mitigate the potential for releases to surface waters such as:

1. Run-off control system - volumes of wastewater will be minimized and properly handled to prevent any releases.
2. Inspections - operators and supervisors perform routine inspections of the surface drains, leachate collection and discharge systems and run-on/off control systems to correct potential problems before releases can occur.
3. Training - operators are trained in the proper handling procedures of wastewater discharge, inspection procedures, equipment repair and waste handling.
4. Emergency procedures - operators are trained to respond to releases or potential releases from the unit by taking expeditious containment action.
5. Truck traffic - an accidental spill of hazardous waste into the storm drain could result in human exposure via surface waters because Lake Erie is the source of drinking water for the City of Monroe. However, the public health risk is minimal because:
    a) The spill is likely to be small (less than 35 cubic yards) with a one-time occurrence.
    b) The waste is likely to be contained within the landfill boundaries since the drain gradient is low and the flow is negligible barring a storm.
    c) The pH of the drain water is neutral to slightly basic; leaching of metals and organics from the waste should be minimal.
    d) The waters from the River Rouge, Detroit River and Lake Erie will dilute any concentrates leaving the landfill site. The City of Monroe POTW uses chlorine and potassium permanganate which would tend to oxidize trace organics in the water. Since the POTW raises the pH of the incoming water for softening purposes, any trace metals will be precipitated.

The surface water quality in the surrounding community will not deteriorate due to normal operation or accidental spills from truck traffic at the landfill. In addition, preventive and containment procedures afford added insurance against human exposure resulting from surface water releases.

Potential for Human Exposure Via the Air Pathway

The only pathway to human exposure from a release of the solid waste (particulates) at the facility is via fugitive air emissions. If contaminants from the facility became airborne, they could be carried into the neighborhood whereupon residents could be subject to inhalation of hazardous constituents. It is estimated that 125,000 people live within a four mile radius of the facility. The wastes are not reactive, volatile, ignitable or incompatible, however, they may include particulate matter susceptible to windblown conditions resulting in fugitive emissions, if they are not handled appropriately.

Various neighborhood organizations have participated in public hearings relating to the possible health and safety hazards at the facility as they relate to hazardous waste operations. As a result of such interest, the City of Dearborn required an analysis to address the question of whether there is an increased cancer incidence among residents of the community neighboring the disposal facility. The analysis prepared by the Biostatistics Unit of the Michigan Cancer Foundation, Division of Epidemiology is provided on pages 428-439, and concludes that there is insufficient evidence to support that residents of Snow Woods are at a higher risk of cancer because of their proximity with the Allen Park Clay Mine Landfill.

Air monitoring has been proposed for the facility to satisfy Michigan Act 64 permit requirements. The proposed plan is provided with this submittal on pages 440-442. Plans to control wind dispersal of particulate matter at the facility is provided on page 162.1A of the license application. The wind rose showing prevailing wind speed and direction is on page 154.6A of the application.

A fugitive dust control program has been proposed for the facility and is provided on pages 443-447. In order to assess the impact of potential fugitive emissions from the hazardous waste unit on the community, the model on page 448 was developed.

Snow Woods

Introduction

The Biostatistics Unit of the Michigan Cancer Foundation, Division of Epidemiology analyzed cancer incidence in the Snow Woods Neighborhood Area (1970 Census tracts 825.01 and 825.02) of the city of Dearborn at the request of the Dearborn Health Department. This project was completed as part of a larger study of the possible health and safety hazards posed by the Allen Park Clay Mine Landfill Hazardous Dump site which is adjacent to the Snow Woods Neighborhood. The analysis to be described addresses the question of whether there is an increased cancer incidence among residents of this neighborhood.

Methods

All cancer cases with the exception of non-melanoma skin cancers diagnosed between 1973 and 1981, by place of residence, were identified from the Michigan Cancer Foundation Cancer Surveillance System. Persons diagnosed with cancer while living within the 1970 census tracts 825.01 or 825.02 were taken to be Snow Woods cancer cases. There were 265 such cases, 264 of which were white and one black. The 4228 (4221 white and 7 black) Dearborn cancer cases consist of persons living within the City of Dearborn at the time of cancer diagnosis. 83,456 (59,614 white and 23,842 black) cancer cases were identified as living in Wayne County at the time of diagnosis and there were 130,948 (106,029 white and 24,919 black) cases identified in the tri-county area (Wayne, Oakland and Macomb counties). persons identified were classified according to cancer site, age, race, sex.

Snow Woods cancer cases were further classified according to street address. This was done so that the exact place of residence of each case could be plotted on a map of the Snow Woods neighborhood. The mapping procedure did not produce any clear results. Cancer cases were located around the perimeter of the two census tracts at the time of diagnosis. Fewer cases were found in the center part of both census tracts. This cancer distribution may be due to the distribution of family housing in these areas.

Using the 1973-1981 frequencies of cancer in the defined populations and population estimates for 1973-1981 (based on linear interpolation between the 1970 and 1980 census data for these areas) cancer incidence rates were calculated by age, sex and cancer site. Because there were so few blacks in Snow Woods, the nature of the census data precluded separating the Snow Woods population by race. The racial makeup of Dearborn is similar to that of Snow Woods so the Dearborn population was not stratified by race either. Both the Snow Woods and Dearborn populations have few blacks (1.25% and .09% black, respectively). For this reason, only the white Wayne County and white tri-county cancer incidence rates were used in the analysis.

The observed numbers of Snow Woods cancer cases (all races) were compared with the expected number of cases. The expected number of cancers was obtained by applying the cancer incidence rates in Dearborn (all races), Wayne County (whites) and the tri-county area (whites) to the Snow Woods population. This comparison was done by sex and age (<5, 5-9, 10-14, 15-19, 20-24, 25-34, 35-44, 45-54, 55-59, 60-64, 65-74, 75+) for each site group in which there was at least one Snow Woods cancer case.

Standard Morbidity Ratios (SMR's) were calculated for each age, sex and site group category and for all sites combined, as the ratio of the observed to expected number of cancers in Snow Woods; the ratio then multiplied by 100. A one-sided statistical test was used to determine whether the SMR was statistically significantly greater than 100 ($p<.05$). The one-sided test was used because only an excess of cancer in the Snow Woods community was of interest.

Results

Of the 31 site groups analyzed (including all sites combined) 25 showed no statistically significant excess of cancer cases. These sites include: all sites combined, colon, pancreas, lung and bronchus, female breast, cervix, corpus uteri, leukemia, buccal cavity and pharynx, esophagus, anus, gallbladder, other biliary sites (including bile ducts, ampulla of vater and biliary tract, NOS), larynx, soft tissue, skin melanoma, ovary, testis, bladder, kidney, other nervous system (including cranial nerve, spinal cord, cerebral and spinal meninges, and nervous system, NOS), thyroid, Hodgkin's lymphoma, non-Hodgkin's lymphoma, and ill-defined sites.

For those sites with at least one cancer in both sexes, a statistically significant ($p < .05$) excess of brain cancers among all persons (Table 1) was observed. While approximately 4 brain cancers were expected, (regardless of comparison group), 12 were observed, resulting in an SMR of approximately 300. For rectum, stomach and liver cancers, excesses were seen with two out of the three comparison groups. Analyses using tri-county whites and Dearborn residents resulted in significant excesses of cancer of the rectum and liver. In the case of stomach cancer, a significantly increased SMR was reported when comparisons were made with tri-county and

Wayne County whites. For all sites in which statistical significance was reached in at least one comparison group, SMRs were elevated (though not statistically significantly) regardless of comparison group.

Cancers in three site groups were found to be in excess only in males, however, the excesses were not seen consistently across all comparison groups. Cancers of the stomach and prostate in males were statistically significantly in excess ($p<.05$) when the expected number of cancers was calculated based on tri-county white and Wayne County white cancer incidence rates. Ten stomach cancers were observed while only about 4.5 were expected and 26 prostate cancers were observed while only about 17.4 were expected (Table 2). A statistically significant excess was not found for the same sites when the comparison was made based on Dearborn cancer incidence rates, however increases were found. Snow Woods males were also shown to have a statistically significant ($p<.05$) excess of multiple myeloma cases when compared with expected numbers calculated using Wayne County white cancer incidence rates (4 observed and 1.3 expected, an SMR of 300.3). An excess of soft tissue cancer cases was also observed, but only when the comparison group was Dearborn. Note that the numbers of observed cancers for these two sites are small.

Female residents of Snow Woods were shown to have an excess incidence of cancer of the liver (Table 1). This result was shown regardless of the comparison group used. While 3 liver cancers were observed among these women, only about 0.5 were expected, a statistically significant excess at $p < .05$.

The brain is the only cancer site for which both males and females were seen to have a statistically significant ($p < .05$) excess (Table 1). This excess is shown with all of the comparison populations used. Six brain cancer cases were observed among both the male and female residents of Snow Woods while only about 2 brain cancers were expected for each sex group. The excess occurred in the <5 and 25-34 year age groups for males and the 55-59 and 65-74 year age groups for females.

Discussion

It can be seen, from the results presented above, that the only statistically significant excess of cancer consistently found in the Snow Woods population is for brain cancer in both males and females and for liver cancer in females. Also shown in the above presentation is that statistical significance is influenced by the comparison group used in the analysis. It is important to note that expected values are calculated using incidence rates which are, in turn, based on population estimates for intercensal years. The reliablity of such an estimate may vary with the population under study. The accuracy of the incidence rates and, therefore, the expected numbers will depend on the accuracy of the population estimates. Further caution should be taken when interpreting these results because of the large number of statistical tests performed. Each test has a 5% probability of being rejected (resulting in a significant excess of cancers) by chance alone. The large number of statistical tests carried out further increases the possiblity that statistically significant SMRs occurred by chance.

The results presented do not take into account the length of residence in the Snow Woods neighborhood for each cancer case. This information is not available through the Cancer Surveillance System. Therefore, there is no assurance that cancer cases are long-term residents of the area of concern. Furthermore, long-term residents of this neighborhood who moved from these census tracts and subsequently developed cancer could not be identified. A number of other factors could not be controlled for in this analysis including cigarette smoking, alcohol use, and occupation, all of which may be related to cancer occurrence. For example, the development of liver cancer has been linked to hepatitis B virus, alcohol and aflatoxin exposures. (Schottenfeld and Fraumenie, Cancer Epidemiology and Prevention. W.B. Saunder Co., Philadelphia, 1982). Thus, it is impossible to implicate any one factor, such as the hazardous waste dump, as the causal factor resulting in the excess number of cancers on the basis of this investigation.

Studies have shown that systemic injection of certain chemicals into experimental animals results in a high incidence of nervous system tumors. These chemicals include N-nitrosamide, dialkylaryltriazenes, azo, azoxy and hydrazo compounds, and a polycyclic aromatic hydrocarbon. Epidemiologic investigations have reported an association between brain tumors and x-ray exposure, lead (in children), barbituates, work in rubber manufacturing and vinyl chloride exposure. (Schottenfeld and Fraumenie, Cancer Epidemiology and Prevention. W.B. Saunder Co., Philadelphia, 1982).

Based on the above results and discussion, there is insufficient evidence to conclude that the residents of the Snow Woods neighborhood are at a higher risk of cancer because of their association with the Allen Park

they live near a Hazardous Dump than residents of Dearborn, or white residents of either Wayne County or the entire tri-county area. However, the findings regarding the increased incidence of brain tumors in both sexes and of liver cancer in females may warrant further investigation.

Table 1

Observed and Expected Number of Cancers and Age-Adjusted SMR's for Snow Woods by Sex, Site and Comparison Population for those Sites with at Least One Cancer in Each Sex Group

	Total			Males			Females		
	OBS	EXP	SMR	OBS	EXP	SMR	OBS	EXP	SMR
All Sites									
Tri-County Whites	265	270.2	98.1	143	129.5	110.4	122	140.7	86.7
Wayne County Whites	265	270.3	98.0	143	131.0	109.1	122	139.3	87.6
Dearborn	265	271.3	97.7	143	127.2	112.4	122	144.0	84.7
Lung/Bronchus									
Tri-County Whites	43	42.4	101.3	32	30.6	104.5	11	11.8	93.2
Wayne County Whites	43	43.6	98.7	32	32.1	99.6	11	11.4	96.
Dearborn	43	39.3	109.5	32	28.8	111.0	11	10.4	105.
Colon									
Tri-County Whites	29	24.0	120.7	14	12.4	113.1	15	11.6	128
Wayne County Whites	29	23.4	124.1	14	11.9	117.9	15	11.5	13
Dearborn	29	26.8	108.2	14	14.1	99.4	15	12.7	11
Rectum/Rectosigmoid									
Tri-County Whites	19	12.2	156.0*	11	7.2	152.5	8	5.0	1
Wayne County Whites	19	12.5	151.8	11	7.5	147.4	8	5.1	1
Dearborn	19	12.1	157.6*	11	6.4	171.7	8	5.7	
Stomach									
Tri-County Whites	13	6.6	198.5*	10	4.4	228.5*	3	2.2	
Wayne County Whites	13	6.8	190.1*	10	4.7	214.6*	3	2.2	
Dearborn	13	7.9	165.2	10	5.5	181.2	3	2.3	
Brain									
Tri-County Whites	12	3.9	311.7*	6	2.1	283.6*	6	1.7	
Wayne County Whites	12	4.0	301.5*	6	2.2	267.7*	6	1.7	
Dearborn	12	4.2	287.1*	6	2.1	286.8*	6	2.	
Non-Hodgkin's Lymphoma									
Tri-County Whites	8	7.3	109.3	4	3.9	103.2	4		
Wayne County Whites	8	6.9	115.6	4	3.6	111.0	4		
Dearborn	8	7.5	107.1	4	4.3	93.6	4		

Table 1 (Continued)

	Total			Males			Females		
	OBS	EXP	SMR	OBS	EXP	SMR	OBS	EXP	SMR
Pancreas									
Tri-County Whites	7	6.8	103.7	6	3.8	156.9	1	2.9	34.1
Wayne County Whites	7	6.8	102.6	6	3.9	154.7	1	2.9	34.0
Dearborn	7	5.7	122.8	6	3.1	195.3	1	2.6	38.1
Leukemia									
Tri-County Whites	6	7.1	84.6	3	4.2	70.9	3	2.9	104.8
Wayne County Whites	6	7.0	85.7	3	4.2	70.9	3	2.8	108.4
Dearborn	6	6.9	87.2	3	3.7	82.0	3	3.2	93.2
Ill-Defined Sites									
Tri-County Whites	6	8.0	75.0	2	4.1	48.7	4	3.9	102.9
Wayne County Whites	6	8.1	73.7	2	4.2	47.6	4	3.9	101.7
Dearborn	6	6.5	91.7	2	3.0	67.2	4	3.6	112.3
Buccal Cavity/Pharynx									
County Whites	5	8.6	58.1	4	6.0	66.3	1	2.6	38.9
ayne County Whites	5	9.4	53.2	4	6.7	59.4	1	2.7	37.6
Dearborn	5	6.8	73.1	4	4.7	85.8	1	2.2	45.9
Liver									
Tri-County Whites	4	1.4	296.3*	1	.9	111.2	3	.5	660.8*
Wayne County Whites	4	1.6	246.9	1	1.1	87.1	3	.5	635.3*
Dearborn	4	.9	434.8*	1	.6	180.8	3	.4	802.1*
Skin Melanoma									
Tri-County Whites	3	4.8	62.0	1	2.6	38.5	2	2.2	89.2
Wayne County Whites	3	4.1	74.1	1	2.1	47.2	2	1.9	103.8
Dearborn	3	4.1	73.4	1	2.0	49.3	2	2.1	97.1
Other Biliary									
Tri-County Whites	2	1.0	204.1	1	.5	190.5	1	.5	223.2
Wayne County Whites	2	1.1	190.5	1	.6	175.8	1	.5	206.6
Dearborn	2	1.0	206.2	1	.4	236.4	1	.5	183.5
Larynx									
-County Whites	2	4.8	41.6	1	4.0	25.1	1	.8	122.6
ayne County Whites	2	5.3	38.0	1	4.5	22.4	1	.8	123.6
Dearborn	2	3.0	66.9	1	2.3	44.3	1	.7	136.6

* SMR is significantly greater than 100 ($p<.05$)

Table 7

Observed and Expected Number of Cancers and Age-Adjusted SMR's for Snow Woods by Sex, Site and Comparison Population for Sex-Specific Sites and Sites with at Least One Observed Cancer in Males Only

	Males		
	OBS	EXP	SMR
Prostate			
Tri-County Whites	26	17.5	148.4*
Wayne County Whites	26	17.3	150.2*
Dearborn	26	20.3	127.9
Bladder			
Tri-County Whites	4	10.0	39.8
Wayne County Whites	4	9.8	41.0
Dearborn	4	8.8	45.3
Kidney			
Tri-County Whites	4	3.6	110.2
Wayne County Whites	4	3.6	111.7
Dearborn	4	2.6	155.8
Multiple Myeloma			
Tri-County Whites	4	1.5	266.7
Wayne County Whites	4	1.3	300.3*
Dearborn	4	1.7	240.7
Esophagus			
Tri-County Whites	3	2.1	145.1
Wayne County Whites	3	2.3	130.2
Dearborn	3	1.7	173.9
Soft Tissue			
Tri-County Whites	2	.6	363.0
Wayne County Whites	2	.6	333.3
Dearborn	2	.3	298.1
Hodgkin's Lymphoma			
Tri-County Whites	2	1.2	162.2
Wayne County Whites	2	1.1	178.9
Dearborn	2	1.6	127.6

Table 2 (Continued)

	Males		
	OBS	EXP	SMR
Gallbladder			
Tri-County Whites	1	.3	306.8
Wayne County Whites	1	.4	244.5
Dearborn	1	.3	326.8
Testis			
Tri-County Whites	1	1.1	87.8
Wayne County Whites	1	1.0	95.3
Dearborn	1	1.5	65.0

* SMR is significantly greater than 100 ($p < .05$)

Observed and Expected Number of Cancers and Age-Adjusted SMR's for Snow Woods by Sex, Site and Comparison Population for Sex-Specific Sites and Sites with at Least One Observed Cancer in Females Only

	Females		
	OBS	EXP	SMR
Breast			
Tri-County Whites	35	38.8	90.3
Wayne County Whites	35	37.8	92.6
Dearborn	35	44.2	79.2
Corpus Uteri			
Tri-County Whites	11	14.1	78.1
Wayne County Whites	11	12.8	85.9
Dearborn	11	15.8	69.6
Cervix			
Tri-County Whites	6	13.7	43.9
Wayne County Whites	6	14.3	42.1
Dearborn	6	10.8	55.8
Ovary			
Tri-County Whites	2	6.2	32.0
Wayne County Whites	2	5.2	38.5
Dearborn	2	5.3	37.4
Thyroid			
Tri-County Whites	2	2.3	86.2
Wayne County Whites	2	2.0	100.8
Dearborn	2	1.8	110.1
Anus			
Tri-County Whites	1	.4	255.8
Wayne County Whites	1	.4	255.1
Dearborn	1	.4	279.3
Other Nervous System			
Tri-County Whites	1	.1	917.4
Wayne County Whites	1	.1	1333.3
Dearborn	1	.3	302.1

Ford Motor Company

[illegible] Miller Road
Dearborn, Michigan 48121

November 28, 1984

Mr. Allen Greenberg
Air Pollution Control Division
Wayne County Health Department
1311 E. Jefferson Avenue
Detroit, MI 48207

Subject: Allen Park Clay Mine Air Monitoring Program

Dear Mr. Greenberg:

The attached program summary is proposed to satisfy Act 64 air monitoring requirements for the hazardous waste disposal facility at the Clay Mine. The program is based on Tom Shoens' October 30, 1984 recommendations letter and a November 9, 1984 meeting between Tom Shoens, Dave Miller of my office, and Ken Dowell of the Stationary Source Environmental Control Office.

If you have any questions on this program, please contact Mr. Kenneth E. Dowell at 322-1319.

Yours very truly,

Ben C. Trethewey

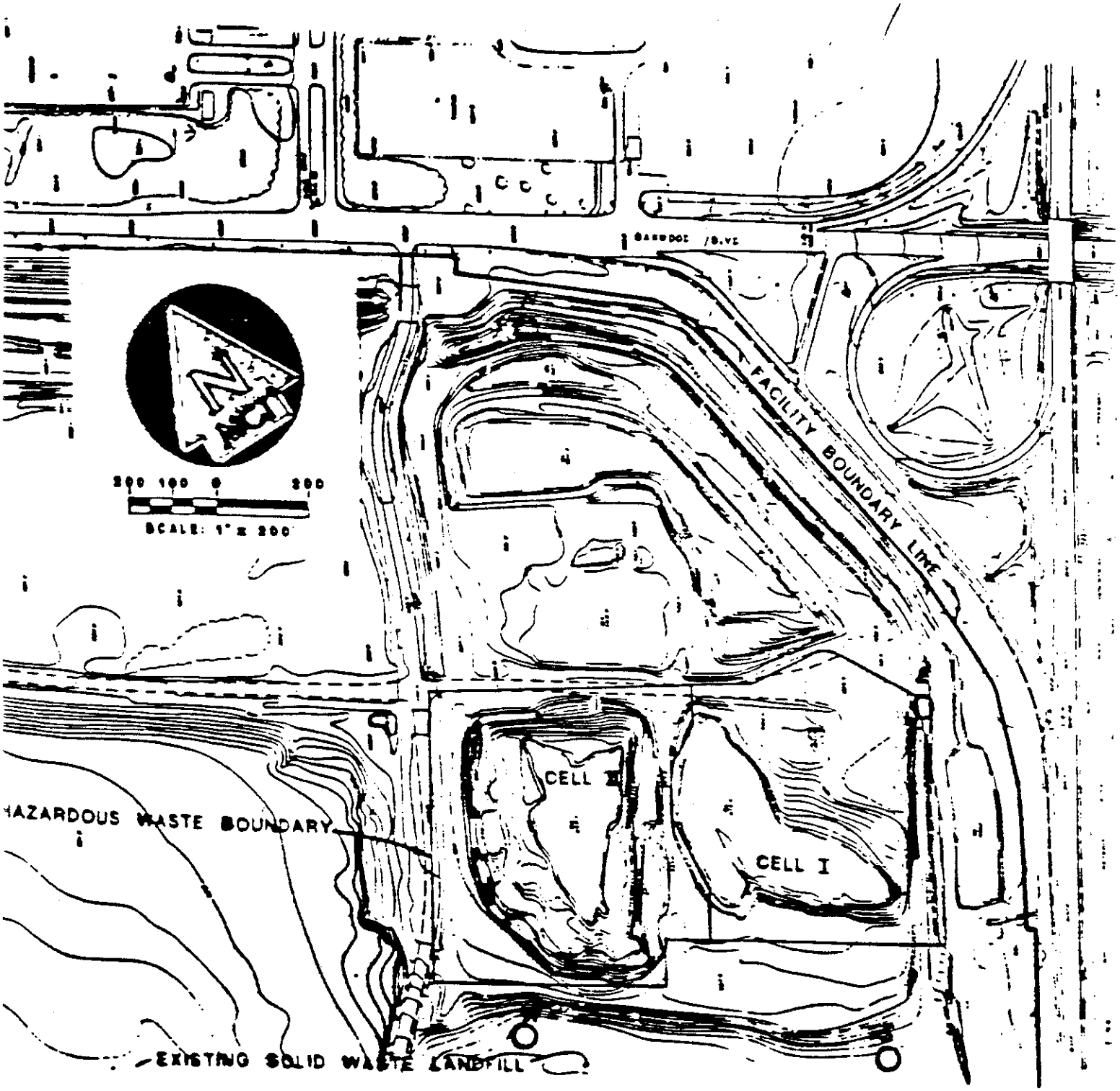
Ben C. Trethewey, Manager
Mining Properties Department

Attachments

cc: L. AuBuchon, MDNR
T. Shoens
D. Miller
V. E. Sussman

Ford Allen Park Clay Mine
Hazardous Waste Disposal Facility
Air Monitoring Program

● High Volume Sampling Locations



Allen Park Clay Mine
Hazardous Waste Disposal Facility
Air Monitoring Program

Hardware

Four high-volume air samplers with flow rate controllers and well-type manometers.

Monitors located on disposal area perimeter as noted on attached plan.

Platforms to support each sampler 10 feet above ground.

Frequency

First quarter, once every third day, every other sample on NAMS Schedule.

Second, third, and fourth quarter, once every sixth day on NAMS Schedule.

Parameters

Routine analyses
- Total suspended particulate (TSP)
- Lead
- Chromium
- Cadmium

As Needed Basis
If TSP is greater than 150 $\mu g/m^3$ and there is active disposal of wastes which are hazardous due to metals content (e.g., Ni when and if F006 wastewater sludge is disposed)
- Hexavalent chromium (only if significant total chromium is present)
- Nickel
- Copper

Demonstration analyses for three selected sampling days during the first sampling month only
- Cyanide
- Phenols

Miscellaneous

Wind speed and direction will be determined locally, either on-site or at the new SSECO Office at Greenfield and Rotunda.

The samplers will be located, operated, calibrated, and audited according to applicable Federal regulations.

All filters and records pertaining to the study will be retained for two years.

Data will be reported quarterly and will be submitted during the month after each quarter.

11/14/84

Ford Motor Company

3001 Miller Road
Dearborn, Michigan 48121

July 17, 1985

Mr. Al Greenberg
Wayne County Health Department
Air Pollution Control Division
1311 East Jefferson
Detroit, Michigan 48207

Subject: Ford Allen Park Clay Mine
Fugitive Dust Control Program

Dear Mr. Greenberg:

Enclosed please find the subject facility's Fugitive Dust Control Program as required by the Michigan Air Pollution Control Commission Rule 336.1373.

Should you have any questions, please contact Mr. Joe Lennon at (313) 322-1227.

Yours very truly,

Ben C. Trethewey, Manager
Mining Properties Department

DSM:dp

Enclosures

bcc: Messrs. J. A. Esper
G. Kircos
R. P. Miller, MDNR
V. H. Sussman

Fugitive Dust Control Program

Ford Motor Company - Allen Park Clay Mine
17250 Oakwood Blvd.
Allen Park, Michigan 48120

Facility Operator:

Ben C. Trethewey

Telephone: (313) 594-2242

Room 2042, R.O.B.

3001 Miller Road

Dearborn, Michigan 48121

Facility Map:

Refer to Attachment I

Facility Description:

Site activities include: 1) 17 acre hazardous waste landfill
2) 9 acre non-hazardous solid waste landfill
3) 16 acre clay mining operation

Fugitive Dust Control Measures:

1) Hazardous Waste Landfill

Waste is covered daily to prevent waste materials from becoming airborne. Active truck dumping traffic areas are kept damp by daily spraying